

CAPSTONE: SEA SCANNERS

MINUTES OF FOURTH INSTRUCTOR MEETING

A virtual meeting of the Sea Scanners team along with project instructor/advisor Dr. Herbert Hess was held on Wednesday, October 21, 2020 over the Zoom conference platform. Ethan Morris was the designated recorder.

The meeting began at 12:00 p.m. (PST).

Attendance was noted. All present members are listed below.

The team shared with Dr. Hess the client questions they developed after the last instructor meeting.

- Dr. Hess added a question of where the antenna will be mounted on the barge?
- Dr. Hess inquired of a block diagram of the design for the team to create
 - The team will need to make control flow and data flow diagrams
 - Consider the interface of the product with given to the client
- Follow up with client on getting virtual tour of the site

There was a discussion over the preliminary design the team had created.

- The CAD design Steven made was shown as well as Cade's design notes
- Design could be 3D printed base and put fiberglass over it to seal and waterproof the housing
- Dr. Hess inquired about servicing the system when implemented
 - Having latches connecting the walls to the base should allow for easy servicing
 - Could the Arduino be programmed remotely?
 - The team should investigate that
 - There may be Bluetooth Arduino adapters that allow for this
- Ethan asked for Dr. Hess's thoughts on the cooling of the system
 - The team needs to create a thermal design
 - See about using either the walls or the rotating pole as a heat-sink
 - Aluminum could be used as a heat-sink
 - The power supply will be a source of heat

- Having the power supply outside of the housing could reduce heat

We discussed the Design Validation Plan (DVP) with Dr. Hess

- We have missing information from the client that could hinder the development of the DVP
 - The team may be able to get an extension on the DVP assignment
 - This subject may be discussed further during Friday's meeting

Also Dr. Hess advised the team on getting a study room (GJ102C).

- The team will need to see the department secretary to get forms to apply for a room
- Dr. Hess will need to sign off on the forms
- The team may need to deposit about \$25 for the key (for everyone)

Dr. Hess left the meeting at 12:37 p.m. (PST)

The team discussed things to do over the next few days.

- Everyone needs to finish putting down their DVP ideas
 - This will be presented during the instructor meeting on Friday
 - Steven needs to write up and send out the meeting agenda for Friday
 - Ethan will draft up a value proposition for Friday's meeting
 - Everyone should continue researching and validating the preliminary design

The meeting was virtually adjourned at 12:48 p.m. (PST).

Respectfully Submitted,

Ethan Morris

Member of the Sea Scanners Team

Members Present:

Sea Scanners Team

Dr. Herbert Hess